leader peptide capable of self targeting into a DNA containing organelle, such that said streptavidin accumulates within said DNA containing organelle of said cells of the somatic tissue following said step of expressing.

REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-51 are in this case. Claims 3, 5, 8, 15-17, 23, 30, 34 and 39-49 were withdrawn under a restriction requirement as drawn to a non-elected invention. Claims 1-2, 4, 6-7, 9-14, 18-22, 24-29, 31-33, 35-38 and 50-51 have been rejected. Claims 1-51 have now been cancelled. New claims 54-60 have now been added.

35 U.S.C. § 112, First Paragraph, Rejections

The Examiner has rejected claims 1-2, 4, 6-7, 9-14, 18-22, 24-29, 31-33, 35-38 and 50-51 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 1-51 have now been cancelled. New claims 54-60 have now been added.

The Examiner states that the instant specification fails to provide written description support for the phrase "vegetative plant tissue".

Applicant believes that this statement is in error; both the specification and the examples section provide ample support for this phrase. For example, the text on page 25, line 10-14 of the published PCT (WO 00/07427) clearly defines somatic tissue and vegetative tissue, both art recognized and thus well known terms, while the Examples section clearly illustrates selective degeneration of vegetative tissue. For example, Figures 5 and 7 illustrate generation and selection of plants exhibiting degeneration of vegetative tissue (young leaves). Thus, Applicant is of the strong opinion that the instant specification fulfills the written description requirement with regards to vegetative tissue, clearly defining to an ordinary skilled artisan what such tissue constitutes and how to generate and select plants exhibiting degeneration of such tissue.

The Examiner also reject claims 1-2, 4, 6-7, 9-14, 18-22, 24-29, 31-33, 35-38 and 50-51 under 35 U.S.C. § 112 first paragraph, because the specification while

being enabling for streptavidin encoding constructs, it does not reasonably provide enablement for constructs encoding a biotin binding protein. Claims 1-2, 4, 6-7, 9-14, 18-22, 24-29, 31-33, 35-38 and 50-51 have now been cancelled. New claims 54-60 have now been added.

Following a phone interview conducted with the Examiner on October 9, 2003, Applicant has elected to amend the claim language per Examiners suggestions and restrict the claimed invention to the use of streptavidin. Thus, new claims 54-60 claim the use of streptavidin in degeneration of somatic plant tissue, thereby rendering moot Examiner's rejection with respect to claim enablement.

35 U.S.C. § 112, Second Paragraph, Rejections

The Examiner has rejected claims 2, 7, 19, 22, 31 and 33 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 2, 7, 19, 22, 31 and 33 have now been cancelled. Terms and phrases which are recited in these claims and which served as a basis for the U.S.C. § 112, second paragraph rejections are not recited in New claims 54-60.

35 U.S.C. § 102/103 Rejections

The Examiner has rejected the claims under 35 U.S.C. § 102 as being anticipated by Howard et al., Baszczynski et al. or Albertson et al. The Examiner's rejections are respectfully traversed. Claims 1-51 have now been cancelled rendering moot the Examiner's rejections with respect to these claims. New claims 54-60 have now been added.

The Examiner states that the prior cited describes various methods and constructs which can be used to degenerate somatic tissue and since such methods and constructs target anther tissue which is in fact somatic tissue, these prior art references anticipate the present invention.

The prior art cited by the Examiner in the 35 U.S.C. §102 rejection describes methods of inducing male sterility via degeneration of anther tissue or methods of commercially producing avidin in plants. In sharp contrast, the present invention relates to a novel approach for controlling plant morphology via selective somatic

plant tissue degeneration. Such selective somatic plant tissue degeneration enables control over crop growth and fruit yield, thereby providing growers with a tool which can be used, for example, to increase crop yield and quality. Examples of uses of the present method are provided in the Examples section of the instant application. For example, Figure 8 illustrates generation of seedless tomato plant by selective degeneration of embryo tissue of tomato plants, while Figures 5 and 7 illustrate plants which were selected as exhibiting degeneration of young leaf tissue and/or shoots and thus are characterized as having a reduced canopy size. It should be noted that the plants illustrated in Figures 5, 7 and 9 were all male fertile.

Although the methods employed by the prior art document cited by the Examiner can result in somatic tissue degeneration, such prior art methods do not employ or suggest a step of identifying and selecting plants which exhibit altered morphology as a result of somatic degeneration.

In order to expedite prosecution in this case, Applicant has elected to reintroduce the subject matter of the invention in New claims which recite a step of "selecting viable plants of said plurality of plants which exhibit degeneration of the somatic tissue". Selecting plants according to morphology is a pivotal step of the present method since as is clearly described in the instant application, expression of streptavidin in plants does not produce a progeny of uniform morphology and may also lead to plant death (see, page 47, lines 9-10)

Such selection is not described by Howard et al., Baszczynski et al. or Albertson et al. simply because their plants are not selected according to morphological criteria.

Thus, Applicant is of the strong opinion that this limitation clearly distinguishes the present invention as claimed from the teachings of the prior art cited by the Examiner. Support for this claim amendment can be found throughout the specification (see for example, Figure 7c-d and the text on page 47, line 10-14 of the published PCT).

In addition, Applicant is of the opinion that one of ordinary skill in the art would not be motivated to combine the teachings of Baszczynski et al. and Marianni et al. or Maliga et al. to make the present invention as now claimed.

Marianni et al. and Maliga et al. describe degeneration of somatic tissue using an enzyme such as a protease or DNAse which is toxic to plant cells and the effects of which cannot be readily reversed. Although both Marianni et al. and Maliga et al. describe methods which in fact lead to degeneration of somatic tissue, such methods are directed at generating plants which are sterile (cytoplasmic sterility). Since neither Marianni et al. nor Maliga et al. or for that matter, Baszczynski et al. describe or suggest selection of plants exhibiting somatic tissue degeneration, it is Applicants strong opinion that the present method as now claimed is not rendered obvious by the combined teachings of Baszczynski et al. and Marianni et al. or Baszczynski et al. and Maliga et al.

In view of the above amendments and remarks it is respectfully submitted that claims 54-60 are now in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,

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